



OCCU-TEC

6501 E. Commerce, Suite 230  
Kansas City, MO 64120  
Telephone: 816.231.5580  
Fax: 816.231.5641  
www.occutec.com

December 17, 2008

Mr. David Hartshorn  
GSA Heartland Region  
Safety & Environmental Team Leader  
Facilities Management Division 6PF  
1500 East Bannister Road Room 2101  
Kansas City, Missouri 64131-3088

**RE: Child Care Center Lead Survey – Goodfellow Federal Center, St.  
Louis, Missouri (MO0610)  
Project No. 98130.05**

Dear Mr. Hartshorn:

Thank you for the opportunity to provide the General Services Administration (GSA) with the subject survey. The following is our report.

## **BACKGROUND**

As requested, OCCU-TEC conducted lead testing services at the Child Care Center, located at the Goodfellow Federal Center, in St. Louis, Missouri. The water and paint testing took place on November 6, 2008. The purpose of the testing is to determine the presence and potential exposure of small children to lead through drinking water and lead-based paint. Potential sources of lead in drinking water include lead solder joints, lead service lines, and in rare instances, the water supply itself. Lead compounds in paint, such as white lead and lead chromate were used primarily as color pigments. Children can become exposed to lead in paint by directly eating paint chips, or chewing on protruding surfaces. The most common route of exposure, however, is the ingestion of lead-bearing dust that is generated by the paint when it deteriorates, chalks, or is disturbed by building renovation activities.

## **EXPERIMENTAL**

Sampling areas were limited to only faucets and drinking fountains accessed by children and painted surfaces within the reach of children. Other areas of the building were not included in the subject survey.

Drinking water was collected from 11 locations within the Child Care Center. Samples were collected in 500 milliliter containers that were supplied by the analytical laboratory (Bureau Veritas – North America). The drinking water samples were submitted via Fed Ex to Bureau Veritas - North America for independent analyses. Bureau Veritas is accredited by the AIHA for analyses of lead in drinking water. Bureau Veritas used EPA Method 200.8 for analysis. The Analytical results and Chain-of-Custody information are presented in the Attachments.

The paint inspection was conducted using RMD's LPA-1 X-ray Florescence (XRF) detector. This model is state of the art equipment using x-ray radiation to analyze numerous paint layers for lead, with a 95% confidence level. There were 52 distinct sampling locations tested for the presence of lead-based paint in this facility.

## **RESULTS AND DISCUSSION**

### ***Water Sampling***

The laboratory data from Bureau Veritas indicates that the results ranged from ND (Not Detected at the Reporting Limit) to 18 ug/L.

### ***Paint Testing***

No painted surfaces within the subject survey area tested positive for lead-based paint using the Housing of Urban Development (HUD) lead standard of 1.0 milligram per square centimeter (1.0 mg/cm<sup>2</sup>). Refer to the attached XRF Sample Sheet(s) for complete testing results.

## **SUMMARY**

The maximum level allowed by federal, state and local drinking water standards or Maximum contaminant level (MCL) for lead in drinking water is 15 ug/L or 15 parts per billion. One of the water samples (GW-11) from the Multipurpose Room had results above this level. Refer to the field drawing for the location of this sample. All other sample results were within acceptable levels. No lead-based paint above the HUD Lead Standard of 1.0 mg/cm<sup>2</sup> was identified within the subject survey area.

OCCU-TEC appreciates the opportunity to work with you on this project. Please contact us if we can be of further assistance. We look forward to future opportunities to provide our services to you.

Sincerely,

(b) (6)

Jeff T. Smith  
Project Manager

Attachments



December 17, 2008

Jeff Smith  
OCCU-TEC  
6501 E. Commerce  
Suite 230  
Kansas City, MO 64120-

Bureau Veritas Work Order No. 08120123

Reference: FEDERAL CENTER-GOOD FELLOW, ST LOUIS, MO/98130.05

Dear Jeff Smith:

Bureau Veritas North America, Inc. received 11 samples on 12/3/2008 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely,

Ellen Coffman / /  
Client Services Representative

cc: Michael Wantland (Bureau  
Veritas)

## **CASE NARRATIVE**

Date: *17-Dec-08*

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**Client:** GENERAL SERVICES ADMINISTRATION

**Project:** FEDERAL CENTER-GOOD FELLOW, ST LOUIS, MO/98130.05

**Work Order No** 08120123

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The results of this report relate only to the samples listed in the body of this report.

Unless otherwise noted below, the following statements apply: 1) all samples were received in acceptable condition, 2) all quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, and 3) the industrial hygiene results have not been blank corrected.

This is a revised report. The sample descriptions for "GW-10" and "GW-11" have been changed as requested on 12-17-08.

# ANALYTICAL RESULTS

Date: 17-Dec-08

Client: GENERAL SERVICES ADMINISTRATION

Work Order No: 08120123

Project: FEDERAL CENTER-GOOD FELLOW, ST LOUIS, MO/98130.05

Lab ID: 08120123-001A

Client Sample ID: GW-01-HALLWAY-  
FOUNTAIN

Matrix: DRINKING WATER

Tag Number:

Collection Date: 11/6/2008

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
DRINKING WATER METALS; METHOD EPA 200.8							
Lead	ND	3.0		µg/L	1	12/9/2008	RS

**Qualifiers:**  
ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 17-Dec-08

Client: GENERAL SERVICES ADMINISTRATION

Work Order No: 08120123

Project: FEDERAL CENTER-GOOD FELLOW, ST LOUIS, MO/98130.05

Lab ID: 08120123-002A

Client Sample ID: GW-02-HALLWAY-  
FOUNTAIN

Matrix: DRINKING WATER

Tag Number:

Collection Date: 11/6/2008

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
DRINKING WATER METALS; METHOD EPA 200.8							
Lead	ND	3.0		µg/L	1	12/9/2008	RS

**Qualifiers:**  
ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 17-Dec-08

Client: GENERAL SERVICES ADMINISTRATION

Work Order No: 08120123

Project: FEDERAL CENTER-GOOD FELLOW, ST LOUIS, MO/98130.05

Lab ID: 08120123-003A

Client Sample ID: GW-03-YELLOW RM  
KITCHEN

Matrix: DRINKING WATER

Tag Number:

Collection Date: 11/6/2008

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
DRINKING WATER METALS; METHOD EPA 200.8							
Lead	ND	3.0		µg/L	1	12/9/2008	RS

**Qualifiers:**  
ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 17-Dec-08

Client: GENERAL SERVICES ADMINISTRATION

Work Order No: 08120123

Project: FEDERAL CENTER-GOOD FELLOW, ST LOUIS, MO/98130.05

Lab ID: 08120123-004A

Client Sample ID: GW-04-TEAL FOUNTAIN

Matrix: DRINKING WATER

Tag Number:

Collection Date: 11/6/2008

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
DRINKING WATER METALS; METHOD EPA 200.8							
Lead	ND	3.0		µg/L	1	12/9/2008	RS

**Qualifiers:**  
ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 17-Dec-08

Client: GENERAL SERVICES ADMINISTRATION

Work Order No: 08120123

Project: FEDERAL CENTER-GOOD FELLOW, ST LOUIS, MO/98130.05

Lab ID: 08120123-005A

Client Sample ID: GW-05-BLUE FOUNTAIN

Matrix: DRINKING WATER

Tag Number:

Collection Date: 11/6/2008

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
DRINKING WATER METALS; METHOD EPA 200.8							
Lead	ND	3.0		µg/L	1	12/9/2008	RS

**Qualifiers:**  
ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 17-Dec-08

Client: GENERAL SERVICES ADMINISTRATION

Work Order No: 08120123

Project: FEDERAL CENTER-GOOD FELLOW, ST LOUIS, MO/98130.05

Lab ID: 08120123-006A

Client Sample ID: GW-06-KITCHEN SINK

Matrix: DRINKING WATER

Tag Number:

Collection Date: 11/6/2008

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
DRINKING WATER METALS; METHOD EPA 200.8							
Lead	ND	3.0		µg/L	1	12/9/2008	RS

**Qualifiers:**  
ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 17-Dec-08

Client: GENERAL SERVICES ADMINISTRATION

Work Order No: 08120123

Project: FEDERAL CENTER-GOOD FELLOW, ST LOUIS, MO/98130.05

Lab ID: 08120123-007A

Client Sample ID: GW-07-PINK FOUNTAIN

Matrix: DRINKING WATER

Tag Number:

Collection Date: 11/6/2008

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
DRINKING WATER METALS; METHOD EPA 200.8							
Lead	3.6	3.0		µg/L	1	12/9/2008	RS

**Qualifiers:**  
ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 17-Dec-08

Client: GENERAL SERVICES ADMINISTRATION

Work Order No: 08120123

Project: FEDERAL CENTER-GOOD FELLOW, ST LOUIS, MO/98130.05

Lab ID: 08120123-008A

Client Sample ID: GW-08-PURPLE FOUNTAIN

Matrix: DRINKING WATER

Tag Number:

Collection Date: 11/6/2008

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
DRINKING WATER METALS; METHOD EPA 200.8							
Lead	ND	3.0		µg/L	1	12/9/2008	RS

**Qualifiers:**  
ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 17-Dec-08

Client: GENERAL SERVICES ADMINISTRATION

Work Order No: 08120123

Project: FEDERAL CENTER-GOOD FELLOW, ST LOUIS, MO/98130.05

Lab ID: 08120123-009A

Client Sample ID: GW-09-YELLOW RM SINK

Matrix: DRINKING WATER

Tag Number:

Collection Date: 11/6/2008

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
DRINKING WATER METALS; METHOD EPA 200.8							
Lead	ND	3.0		µg/L	1	12/9/2008	RS

**Qualifiers:**  
ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 17-Dec-08

Client: GENERAL SERVICES ADMINISTRATION

Work Order No: 08120123

Project: FEDERAL CENTER-GOOD FELLOW, ST LOUIS, MO/98130.05

Lab ID: 08120123-010A

Client Sample ID: GW-10 MULTIPURPOSE ROOM

Matrix: DRINKING WATER

Tag Number:

Collection Date: 11/6/2008

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
DRINKING WATER METALS; METHOD EPA 200.8							
Lead	8.8	3.0		µg/L	1	12/9/2008	RS

**Qualifiers:**  
ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 17-Dec-08

Client: GENERAL SERVICES ADMINISTRATION

Work Order No: 08120123

Project: FEDERAL CENTER-GOOD FELLOW, ST LOUIS, MO/98130.05

Lab ID: 08120123-011A

Client Sample ID: GW-11-MULTIPURPOSE ROOM

Matrix: DRINKING WATER

Tag Number:

Collection Date: 11/6/2008

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
DRINKING WATER METALS; METHOD EPA 200.8							
Lead	18	3.0		µg/L	1	12/9/2008	RS

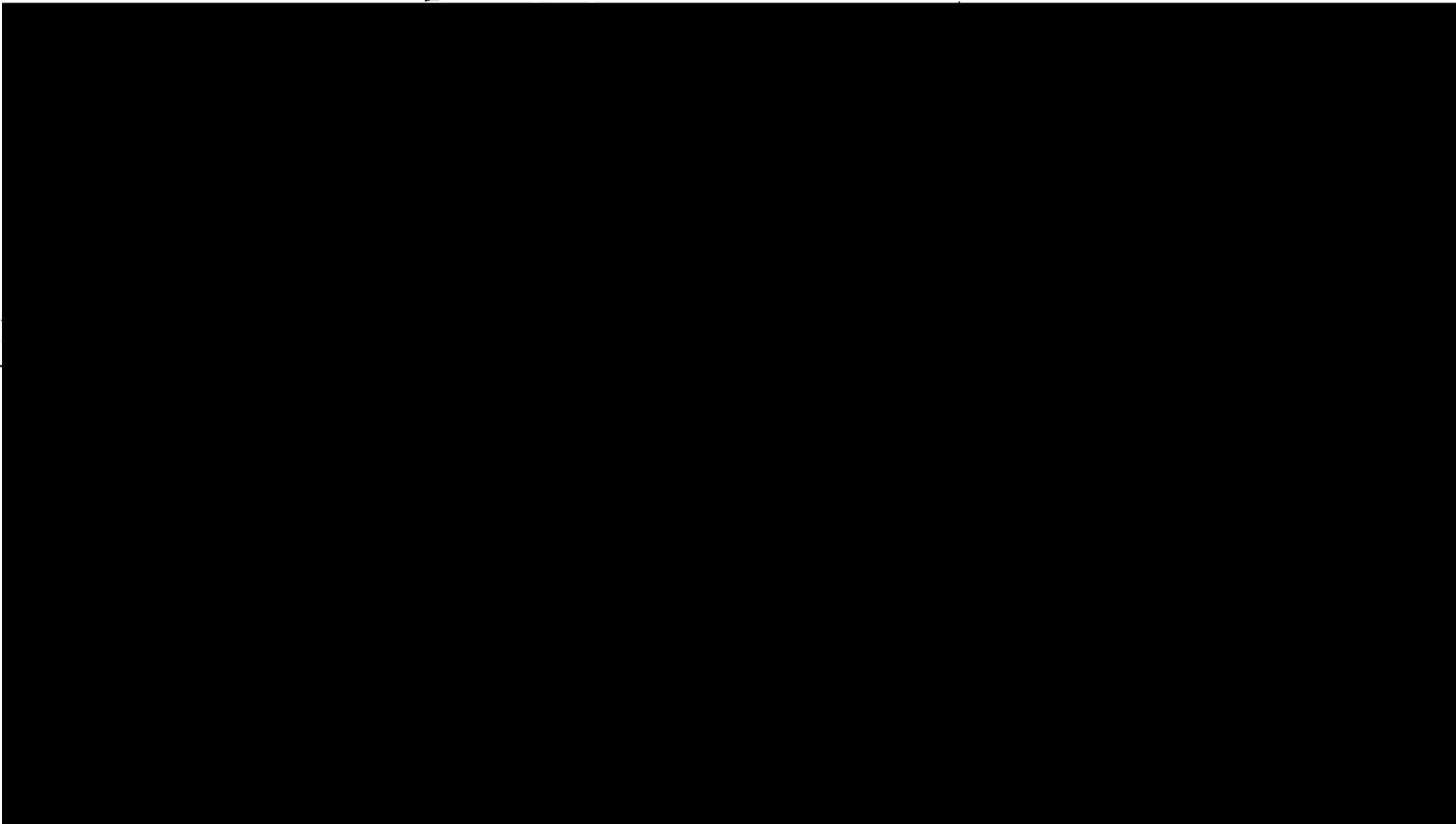
Qualifiers: ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)



# UNCLE SAM'S KIDS

Evacuation Routes



# XRF Sample Sheet

Client: GSA Heartland Region  
Project: Child Care Lead Testing  
Building: Goodfellow Federal Center, St. Louis, MO

Project Number: 98130.05  
Date: 11/6/2008  
Page 1 of 2

Sample Number	Floor	Room	Location	Component	Color	Substrate	Condition (I, F, P)	Reading mg/cm2
1			Calibration					0.8
2			Calibration					0.8
3			Calibration					0.9
4	1	Entry	East	Wall	Blue	Drywall	Intact	0.0
5	1	Entry	East	Window Frame	White	Wood	Intact	0.0
6	1	Entry	West	Wall	Red	Drywall	Intact	0.0
7	1	Entry	West	Ceiling	White	Drywall	Intact	0.0
8	1	Hallway	East	Wall	Red	Drywall	Intact	0.0
9	1	Hallway	East	Wall	Orange	Drywall	Intact	0.0
10	1	Hallway	East	Wall	Yellow	Drywall	Intact	0.0
11	1	Hallway	East	Wall	Green	Drywall	Intact	0.0
12	1	Hallway	East	Wall	Turquoise	Drywall	Intact	0.0
13	1	Hallway	East	Wall	Blue	Drywall	Intact	0.0
14	1	Hallway	East	Wall	Purple	Drywall	Intact	0.0
15	1	Hallway	East	Door	Black	Metal	Intact	0.0
16	1	Hallway	East	Door Frame	Black	Metal	Intact	0.3
17	1	Hallway	West	Wall	Grey	Drywall	Intact	0.0
18	1	Hallway	South	Door	Grey	Metal	Intact	0.0
19	1	Hallway	South	Door Frame	Grey	Metal	Intact	0.0
20	1	Hallway	West	Wall	Lite Green	Drywall	Intact	0.0
21	1	Hallway	West	Wall	Med Green	Drywall	Intact	0.0
22	1	Hallway	West	Window Frame	Red	Wood	Intact	0.0
23	1	Hallway	West	Wall	Violet	Drywall	Intact	0.0
24	1	Hallway	West	Wall	Orange	Drywall	Intact	0.0
25	1	Hallway	West	Door Frame	Grey	Wood	Intact	0.0
26	1	Hallway	West	Wall	Pink	Drywall	Intact	0.0
27	1	Hallway	West	Wall	Lime Green	Drywall	Intact	0.0
28	1	Hallway	West	Wall	Lite Blue	Drywall	Intact	0.0
29	1	Pink	East	Door	Pink	Wood	Intact	0.0
30	1	Pink	East	Door Frame	Grey	Wood	Intact	0.0
31	1	Pink	West	Wall	Grey	Wood	Intact	0.0
32	1	Pink	North	Spindle	Varnish	Wood	Intact	0.0
33	1	Pink	North	Rail	Varnish	Wood	Intact	0.0
34	1	Pink	North	Post	Varnish	Wood	Intact	0.0
35	1	Pink	North	Drain Pipe	Black	Metal	Fair	0.2
36	1	Pink	East	Half Door	Grey	Wood	Intact	0.0

Color Key			Component Key				Substrate Key	
B - Beige	GY - Grey	R - Red	D - Door, DF - Door Frame, DJ - Door Jamb	SB - Stair Baseboard, SR - Stair Riser, R - Railing	BK - Brick	P - Plaster		
BK - Black	M - Mint	S - Stained	W - Wall, C - Ceiling, BB - Baseboard	ST - Stair Tread, RC - Railing Cap, B - Balusters	C - Concrete	PC - Plastic		
BL - Blue	O - Orange	T - Tan	WS - Window Sill, WA - Window Apron,	NP - Newel Post, CLM - Column, CM - Crown Moulding	DW - Drywall	V - Vinyl		
BW - Brown	PK - Pink	W - White	WW - Window Well, WSH - Window Sash	S - Shelf, SS - Shelf Support, F - Floor, DW - Drawer	DWT - Drywall w/ Texture			
C - Cream	PR - Purple	Y - Yellow	WM - Window Mullian, WF - Window Frame	CB - Cabinet, CI - Cabinet Interior, CNT - Counter	G - Glass	W - Wood		
G - Green	P - Papered	Lt - Light	WSC - Window Screen, WJ, Window Jamb	P - Pipe, VC - Vent Cover, CT - Ceiling Tile	M - Metal	WC - Wall Covering		

CC - Calibration Check

F:/SHARE/FORMS/Operations/XRFsampleLog.xls



**STATE OF MISSOURI**  
**ENVIRONMENTAL REGULATION & LICENSURE**

**LEAD OCCUPATION LICENSE REGISTRATION**

Issued to:

**Jeffrey T Smith**

The person, firm or corporation whose name appears on this certificate has fulfilled the requirements for licensure as set forth in the Missouri Revised Statutes 701.300-701.338, as long as not suspended or revoked, and is hereby authorized to engage in the activity listed below.

**Risk Assessor**  
Category of License

Issuance Date: **March 16, 2007**  
Expiration Date: **March 16, 2009**  
License Number: **010316-200089640**

(b) (6)



Jane Drummond  
Director  
Department of Health and Senior Services